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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/624,590      | 07/23/2003  | Dirk Heinrich        | 233812US0           | 7530             |

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EXAMINER

PADGETT, MARIANNE L

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

1762

DATE MAILED: 04/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/624,590

Applicant(s)

HEINRICH ET AL.

Examiner

Marianne L. Padgett

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

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1. This application contains claims 20-21 drawn to an invention nonelected with traverse in Paper No. 8/31/2005. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

2. Applicants amendment has removed the 112, paragraph 2 rejection of section 2 of the 11/17/2005 rejection, as well as the 102 rejections over Quresti et al. & Church, as neither references induction heating processes require frequencies as now claimed.

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 1-10, 12, 14-16 & 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quresti et al. (523), discussed in sections 5-6 of the 11/17/2005 action, and further in view of Winkle, Sr. et al. (5,176,755) or Creps (4,358,887).

The claims been amended to require induction heating using frequencies of 2000-10,000 Hz, i.e. 2-10 kHz. While Quresti et al. does not disclose any particular frequency for use in their induction heating process to melt the powdered fusable powder, such as nylon, it would've been obvious to one of ordinary skill in the art to look to the prior art for appropriate frequencies at which to fuse the plastic powders as taught. Creps (abstract; column 3, lines 33-43; and column 5, lines 56-63) teach plastic coating metal pipes the use of the induction heaters using 3000 Hz to melt plastic particles adhering to the two and thus create a clear plastic coating over the entire surface of a pipe. Similarly, Winkle, Sr. et al. (abstract; column 4, lines 39-53; column 5, on 43-column 6, line 15) teach coating a metal strip with a plastic powder that is melted via induction heating, where a low frequency of less than 10 kHz is preferably used, with teachings that the frequency employed depends on thicknesses of materials involved. From either of these teachings it would've been obvious to one of ordinary skill in the art to determine the routine experimentation the appropriate frequencies to employ in Quresti et al.'s induction heating process in order to melt the fusable powders as taught using suggested frequencies as the starting point for that routine experimentation, hence which would therefore be expected to provide usable frequencies as claimed due to the similarity of materials involved both as coating and substrate.

5. Claims 11, 13 & 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Quresti et al. (523), in view of Winkle, Sr. et al. (5,176,755) or Creps (4,358,887) as applied to claims 1-10, 12, 14-16 & 18-19 above, and further in view of Facer et al. (3,560,239), as discussed in section 7 of the 11/17/2005 action.

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6. Claims 1, 14 & 19 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Church (3108022) as discussed in section 8 of the 11/17/2005 action, in view of Winkle, Sr. et al. (5,176,755) or Creps (4,358,887).

As noted Church does not provide specific teachings of frequencies employed, however as discussed above in section 4 review of prior art induction heating processes for analogous purposes would have provided obvious starting points for routine experimentation, which would have been expected to provide optimized and/or useful frequencies as claimed.

7. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Other art of interest includes Stueke (4685985), who while melts polymeric powder on pipes, does so either with IR or significantly higher frequencies.

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marianne L. Padgett whose telephone number is (571) 272-1425. The examiner can normally be reached on M-F from about 8:30 a.m. to 4:30 p.m.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks, can be reached at (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MLP/dictation software

4/3/2006



MARIANNE PADGETT  
PRIMARY EXAMINER